

## Technical Data Sheet

# Polystone<sup>®</sup> M AST black pressed

PE-UHMW / PE 1000

### Typical characteristics

- Antistatic
- Good wear resistance
- Good impact strength

### Typical industries

- Electronics
- Mechanical Engineering Industry
- Bulk Material Handling

### Sustainability

- LCA available (ISO 14040/44)

	Test method	Unit	Guideline value
<b>General properties</b>			
Density	DIN EN ISO 1183-1	g / cm <sup>3</sup>	>0,94
Water absorption	DIN EN ISO 62	%	0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Molecular weight	-	10 <sup>6</sup> g/mol	~ 9
<b>Mechanical properties</b>			
Yield stress	DIN EN ISO 527	MPa	>20
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>700
Notched impact strength	DIN EN ISO 11542	kJ / m <sup>2</sup>	>50
Shore hardness	DIN EN ISO 868	scale D	>63
<b>Thermal properties</b>			
Melting temperature	ISO 11357-3	°C	130 ... 135
Thermal conductivity	DIN 52612-1	W / (m * K)	0,40
Thermal capacity	DIN 52612	kJ / (kg * K)	1,90
Coefficient of linear thermal expansion	DIN 53752	10 <sup>-6</sup> / K	150 ... 230
Service temperature, long term	Average	°C	-150 ... 80
Service temperature, short term (max.)	Average	°C	130
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	79
<b>Electrical properties</b>			
Volume resistivity	DIN EN 62631-3-1	Ω * cm	≤10 <sup>9</sup>
Surface resistivity	DIN EN 62631-3-2	Ω	≤10 <sup>9</sup>

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)



The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.



[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)

Print: 07/06/2026 • Release: 27/10/2023 • Version: 4.0  
PIM-ID: 591110 • PIM-Code: 1192-35-16.143.162-8.5.6-3-5  
Company-IDs: 20000-1

Page 2 / 2 (Dates in DD/MM/YYYY)

